CLAIMS (29771)

What is claimed is:

1.   A method of layered encoding, comprising:

(a)   applying a base layer perceptual filter to a signal to yield a base layer filtered signal;

(b)   finding a base layer estimate for said signal by base layer error minimization with said base layer filtered signal; and

(c)   finding a first enhancement layer estimate for said signal by error minimization with a first enhancement layer perceptual filter applied to an error in said base layer after inverse filtering with said base layer perceptual filter,

(d)   for j = 2, ..., N, finding a jth enhancement layer estimate for said signal by error minimization with a jth enhancement layer perceptual filter applied to an error in said (j-1)st enhancement layer after inverse filtering with said (j-1)st enhancement layer perceptual filter, wherein at least one of said jth enhancement layer perceptual filters is weaker than said base layer perceptual filter.

2.   The method of claim 1, wherein:

(a)   said estimates are synthesis filtered CELP excitations.

3.   A layered encoder, comprising:

(a)   an estimator for each layer of a layered encoder; and

(b)   perceptual filters including inverse filters for each layer, wherein at least one of said layer perceptual filters is weaker than another of said layer perceptual filters.

4.   A method of decoding a layered encoded signal, comprising:

(a)   applying a short-term postfiltering to a synthesized layered encoded signal wherein the short-term postfiltering differs for at least two of the number of layers decoded to form said synthesized layered encoded signal.

5.   A method of decoding a layered encoded signal, comprising:

(a)   applying a long-term postfiltering to a synthesized layered encoded signal wherein the long-term postfiltering is independent of the number of layers decoded to form said synthesized layered encoded signal.